

IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) A process for producing inositol from plant materials, comprising the steps of:
 - a) providing a plant material comprising a neutral soluble sugar and at least one of a phytate or a phytin;
 - b) providing an aqueous slurry of said plant material from step a),
wherein said aqueous slurry of said plant material comprises said neutral soluble sugar of said plant material and said at least one of a phytate or a phytin of said plant material;
 - c) conducting a partial hydrolysis by treating said aqueous slurry of said plant material resulting from step b) with an enzyme product enriched in phytase enzyme to partially hydrolyze of said at least one of a phytate or a phytin to produce a partially hydrolyzed slurry comprising a mixture of inositol phosphates which are negatively charged, and wherein said plant material is a main source of the phytate or phytin which is partially hydrolyzed during said step of a partial hydrolysis;
 - d) separating said partially hydrolyzed slurry of said plant material resulting from step c) to produce a water soluble fraction and a water-insoluble fraction, wherein said water soluble fraction comprises inositol phosphates which are negatively charged, as well said neutral soluble sugar of said plant material;
 - e) separating said water soluble fraction resulting from step d) into a first ionic fraction comprising inositol phosphates which are negatively charged and a first neutral fraction comprising said neutral soluble sugar of said plant material;
 - f) conducting a hydrolysis of said inositol phosphates of said first ionic fraction resulting from step e) to produce inositol and an anionic fraction; and
 - g) separating said inositol from said anionic fraction resulting from step f d.
2. (Previously presented) The process of claim 1, wherein said enzyme product in step c) does not include an acid phosphatase.

3. (Previously presented) The process of claim 1 wherein said step of treating the aqueous slurry in step c) is carried out at a pH between about 3.0 and about 7.0.
4. (Previously presented) The process of claim 3, wherein said enzyme product in step c) comprises an acid phosphatase.
5. (Currently amended) The process of claim 1, wherein said step of separating the partially hydrolyzed slurry into a water-soluble fraction and ~~an~~ a water-insoluble fraction in step d) is carried out by centrifugation.
6. (Currently amended) The process of claim 1, wherein said step of separating the partially hydrolyzed slurry into a water-soluble fraction and ~~an~~ a water-insoluble fraction in step d) is carried out by filtration.
7. (Previously presented) The process of claim 1, in which the step of conducting a hydrolysis of said inositol phosphates of said first ionic fraction in step f) comprises treating said first ionic fraction with a phytase.
8. (Previously presented) The process of claim 1, in which the step of conducting a hydrolysis of said inositol phosphates of said first ionic fraction in step f) comprises treating said first ionic fraction with an acid phosphatase.
9. (Previously presented) The process of claim 8, wherein said step of conducting a hydrolysis in step f) is carried out at a pH of less than 4.
- 10.-11. Canceled.
12. (Previously presented) The process of claim 3, in which the step of conducting a hydrolysis of said inositol phosphates in said first ionic fraction in step f) comprises treating said first ionic fraction with a phytase.

13. (Previously presented) The process of claim 3, in which the step of conducting a hydrolysis of said inositol phosphates in said first ionic fraction in step f) comprises treating said first ionic fraction with acid phosphatase.
14. (Previously presented) The process of claim 13, wherein said step of conducting a hydrolysis in step f) is carried out at a pH of less than 4.
- 15.-16. Canceled
17. (Previously presented) The process of claim 4, in which the step of conducting a hydrolysis of said inositol phosphates in said first ionic fraction in step f) comprises treating said first ionic fraction with acid phosphatase, and wherein said hydrolysis is carried out at a pH of less than 4.
- 18.-21. Canceled.
22. (Previously presented) The process of claim 1, wherein the step of conducting a hydrolysis of inositol phosphates of said first ionic fraction in step f) is achieved free of enzyme based catalysis.
23. (Previously presented) The process of claim 1, further comprising the step of producing a product comprising said inositol resulting from step g).